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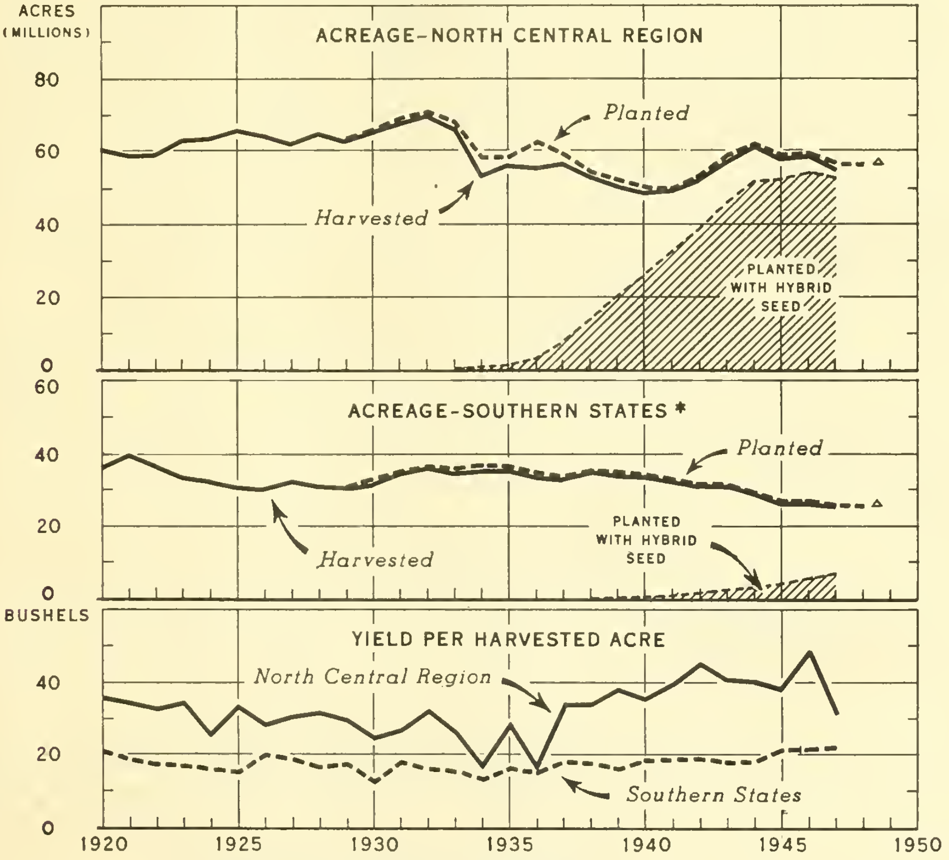
THE Feed SITUATION

BUREAU OF AGRICULTURAL ECONOMICS
UNITED STATES DEPARTMENT OF AGRICULTURE

FS-97 BAE MARCH 1948

In this issue:
SEASONAL VARIATION IN CORN PRICES BY REGIONS

CORN: ACREAGE AND YIELD PER ACRE, NORTH CENTRAL AND SOUTHERN STATES, 1920-48



* SOUTH CENTRAL AND SOUTH ATLANTIC REGIONS
△ PROSPECTIVE PLANTINGS BASED ON FARMERS' INTENTIONS OF MARCH 1

U. S. DEPARTMENT OF AGRICULTURE NEG. 46669 BUREAU OF AGRICULTURAL ECONOMICS

Farmers plan to plant about the same acreage of corn in 1948 as the small acreage planted in 1947. But with an average growing season, production would be around one-fourth larger than last year and considerably above the long-time average. In the North Central Region, where hybrid seed is generally used, yields per acre in recent years have averaged about one-third higher than during the twenties. Yields have increased only moderately in the South Central and South Atlantic Regions, where use of hybrid seed, although increasing, is still rather limited. Ordinarily over 95 percent of the United States corn acreage is planted in these three regions.

Table 1.- Statistical Summary

PRICES

Item	Unit	1946		1947		1948		
		Feb.	Mar.	Feb.	Mar.	Jan.	Feb.	Mar.
		Cents	Cents	Cents	Cents	Cents	Cents	Cents
Grains and Hay								
Corn, No. 3 Yellow, Chicago	Bushel	118.0	120.8	141.9	173.1	271.1	225.3	1/230.2
Price received by farmers, U. S.	"	111.0	114.0	123.0	150.0	246.0	192.0	211.0
Oats, No. 3 White, Chicago	"	80.5	81.1	83.6	94.3	140.1	127.3	1/131.0
No. 3 White, Minneapolis	"	76.2	78.7	81.8	92.0	136.2	117.8	1/127.6
Price received by farmers, U. S.	"	73.1	75.1	79.7	89.0	127.0	104.0	117.0
Barley, No. 3, Minneapolis	"	130.2	133.9	164.2	183.8	250.7	214.2	1/230.4
Price received by farmers, U. S.	"	111.0	114.0	133.0	144.0	206.0	172.0	187.0
Grain sorghums, price received by farmers, U. S.	100 pounds	217.0	232.0	215.0	257.0	377.0	277.0	336.0
Wheat, No. 2 Hard Winter, Kansas City	Bushel	169.1	172.0	226.1	269.4	303.2	250.8	1/245.6
		Dollars	Dollars	Dollars	Dollars	Dollars	Dollars	Dollars
Hay, No. 1 Alfalfa, Kansas City	Ton	29.00	29.00	30.50	34.40	36.25	35.50	34.50
Price received by farmers, U. S.	"	15.70	15.50	17.50	17.40	18.70	19.60	19.70
Byproduct Feeds (bagged)								
Standard bran, Minneapolis	Ton	37.75	37.75	38.50	58.00	81.00	64.25	65.40
Buffalo	"	41.55	41.55	43.90	62.50	87.40	71.90	72.60
Price paid by farmers, U. S.	100 pounds	2.44	2.45	2.54	3.07	4.29	4.01	3.90
Standard middlings, Minneapolis	Ton	37.75	37.75	41.40	60.25	83.75	65.75	73.10
Buffalo	"	41.55	41.55	46.90	64.75	89.90	74.10	77.80
Price paid by farmers, U. S.	100 pounds	2.46	2.47	2.71	3.23	4.55	4.21	4.02
Cottonseed meal, 41 pct. protein, Memphis	Ton	48.75	48.75	62.25	74.90	97.60	84.00	81.15
Linseed meal, 32 pct. protein, Minneapolis	"	45.50	45.50	84.10	85.60	113.75	91.50	77.00
30 pct. protein, San Francisco	"	47.25	47.25	74.75	72.40	93.60	89.75	84.90
Soybean meal, 41 pct. protein, Chicago	"	52.00	52.00	65.40	81.00	110.25	89.00	84.75
Price paid by farmers, U. S.	100 pounds	3.15	3.18	4.27	4.47	5.82	5.24	5.09
Peanut meal, 45 pct. protein, S. E. milling points	Ton	53.25	53.25	61.50	71.40	94.95	88.60	85.50
White hominy feed, Chicago	"	49.00	49.00	49.20	64.50	99.50	80.40	81.30
Gluten feed, 23 pct. protein, Chicago	"	41.25	41.25	45.50	50.50	88.00	80.00	74.60
Tankage, digester, 60 pct. protein, Chicago	"	74.55	74.55	107.05	115.30	150.10	138.25	120.00
Meat scraps, Chicago	"	73.50	73.50	88.45	99.65	135.10	125.10	108.90
Fish meal, San Francisco	"	79.50	79.50	167.50	162.50	190.95	185.10	159.15
Alfalfa meal, No. 1 fine, Kansas City	"	44.70	44.70	41.50	38.50	50.00	49.25	46.00
Mixed dairy feed, 16 pct. protein, price paid by farmers, U. S.	100 pounds	3.04	3.08	3.53	3.68	4.76	4.63	4.51
Laying mash, price paid by farmers, U. S.	"	3.71	3.75	4.24	4.46	5.74	5.55	5.46
Scratch feed, price paid by farmers, U. S.	"	3.47	3.54	3.81	4.20	5.69	5.34	5.30

INDEX NUMBERS OF PRICES

		Percent	Percent	Percent	Percent	Percent	Percent	Percent
Feed grains, price received by farmers, U. S.	1910-14=100	176	180	195	231	366	289	319
Ten principal high-protein feeds, terminal markets	1935-39 100	166	166	225	255	344	303	280
Four oilseed meals	"	166	166	220	257	338	290	275
Tankage, meat scraps, and fish meal	"	166	166	272	281	352	332	287
Gluten feed, brewers' dried grains, and distillers' dried grains	"	166	166	185	205	364	330	298
Feed, prices paid by farmers, U. S.	1910-14=100	180	181	207	229	314	285	286

LIVESTOCK-FEED PRICE RATIOS 2/

(March average)								
Hog-corn, Chicago 1927-46 = 12.8	Bushel	12.5	12.3	18.1	15.7	9.9	9.9	1/ 9.4
Hog-corn, U. S. farm price 1927-46 = 12.8	"	12.8	12.5	19.3	17.6	10.9	11.2	10.3
Beef steer-corn, Chicago 1927-46 = 14.9	"	12.0	13.5	15.5	13.5	10.8	11.7	1/11.6
Butterfat-feed, U. S. 3/ 1927-46 = 24.6	Pound	28.5	28.4	24.6	24.3	20.1	22.2	20.4
Milk-feed, U. S. 3/ 1927-46 = 1.26	"	1.44	1.41	1.42	1.28	1.10	1.19	1.15
Egg-feed, U. S. 1937-46 = 10.6	"	10.8	10.5	11.3	10.6	9.6	9.9	9.2

Prices compiled from Chicago Journal of Commerce, Minneapolis Daily Market Record, Kansas City Grain Market Review, and reports of the Grain Branch, Production and Marketing Administration, and the Bureau of Agricultural Economics.

1/ Four weeks ended March 27.

2/ Units of corn or other concentrate ration equal in value to 100 pounds of hog or beef-steer, one pound of butterfat or milk, or one dozen eggs.

3/ Includes dairy production payments through June 30, 1946.

THE FEED SITUATION

Approved by the Outlook and Situation Board, April 2, 1948

SUMMARY

Larger supplies of feed grains than in the present feeding season are in prospect for 1948-49, if farmers plant as many acres to feed crops as they planned on March 1 and yields are about average. This could result in lower feed prices and more favorable livestock-feed price ratios. Livestock numbers during 1948 are expected to continue the downward trend of the past few years.

Farmers planned to increase the total acreage of the 4 principal feed grains in 1948 about 3 percent above the 1947 acreage, according to the Prospective Plantings report of March 1. An increase of 8 percent is planned in oats acreage, 5 percent in barley, and 11 percent in sorghums for all purposes. The planned corn acreage is about the same as that in 1947, which was the smallest acreage planted in over 50 years. But if yields this year equal the 1942-46 average, the crop would be about one-fourth larger than last year's small harvest.

The substantial increase in corn yields in the last two decades was caused in a large degree by improved methods of tillage, increased use of fertilizer, and, in the last 10 years particularly, increased use of hybrid seed. Nearly three-fourths of the corn acreage will be planted to hybrids this spring. The 1948 corn crop, under average growing conditions, may be around 10 percent greater than an average crop of the 1920's, even though acreage will be about 15 percent smaller.

Total 1948 production of four feed grains would be about 116 million tons, 21 percent larger than in 1947, if yields on the prospective acreage are about the same as in 1942-46. With the small carry-over in prospect, the total supply would be around 13 percent larger than last year, but 6 percent below the 1942-46 average. Since a smaller number of livestock are in prospect for 1948-49, feed grain supplies per grain-consuming unit would be around 10 to 15 percent larger than in 1947-48 and 10 percent above the 1942-46 average.

A total hay acreage slightly smaller than the acreage harvested last year is in prospect for 1948. At average yields, hay production would be adequate for the smaller number of livestock.

Supplies of oilseed cake and meal may be about as large in 1948-49 as in the current marketing year, if farmers carry out their intentions to plant oilseed crops and yields are about average for recent years.

Larger supplies of feed grains next fall probably would result in a much greater than usual seasonal decline in prices of corn and other feed grains. Prices of feeds generally are expected to average lower in the last half of 1948 than in the same period of 1947. The difference is likely to be most pronounced in the last quarter. Feed prices are expected to be lower relative to livestock prices this coming fall and winter than in 1947-48.

Supplies of feed grains and other feed concentrates in the first half of 1948 are estimated to be around 20 percent smaller than in the same period last year. About 10 percent less will be fed, smaller quantities will be used for domestic food and industrial purposes, and less will be exported. The carry-over of feed grains into the 1948-49 season also will be reduced much below last year's stocks, and is likely to be the smallest since 1937.

Feed prices in March were substantially below the January record but were about one-third higher than a year earlier. Feed grains were relatively higher in price than most byproduct feeds during March.

FEED PROSPECTS FOR 1948-49

Larger Acreage of Feed Grains Planned for 1948

Farmers will increase the total acreage planted to feed grains this year about 5 million acres, or 3 percent above 1947, if they carry out intentions as indicated in the Prospective Plantings report. Such an acreage, however, would be about 9 percent below the largest acreage planted during the war, and slightly below the 1937-41 average.

Farmers intend to increase acreage seeded to oats approximately 8 percent, barley 5 percent, and sorghums for all purposes 11 percent. They plan to plant about the same acreage in corn as last year. This would again be smaller than in any year since 1894.

If yields by States on the prospective acreage are about equal to the 1942-46 average, production of the four principal feed grains would total 116 million tons, 20 million more than last year and about equal to the high level of production during the war. Corn production would be about one-fourth larger than the 2.4 billion bushels produced in 1947. Even though carry-over of feed grains into the next season is likely to be less than in any year since 1937, the total supply of feed grains for 1948-49 would be around 15 million tons larger than in 1947 and a little below the wartime average.

Livestock numbers, declining since 1944, are likely to fall further in 1948. The number of grain-consuming animal units to be fed during 1948-49 is expected to be a little smaller than in the current feeding year, well below the wartime level, and slightly less than the 1938-42 average. In this case, the prospective total supply of feed grains per grain-consuming animal unit would be around 10 to 15 percent larger than for the current feeding season and 10 percent larger than the 1942-46 average. Such an increase in supply would permit an increase in the rate of feeding per animal above 1947-48, greater use for food and for industrial purposes, and larger exports. Furthermore, the carry-over at the close of the 1948-49 marketing year could be considerably larger than is now expected at the end of the current season.

Table 2. - Feed grains: Supply per grain-consuming animal unit fed during the year, United States, average 1937-41, annual 1942-48

Crop year beginning	Production of four feed grains	Carry-over, beginning of crop year 1/	Total supply	Grain-consuming animal units fed annually 2/	Supply per animal unit fed
	Mil. tons	Mil. tons	Mil. tons	Million	Ton
1937-41	99.3	16.9	116.2	153.1	.76
1942	120.8	81.5	139.3	192.4	.72
1943	112.1	17.8	129.9	193.1	.67
1944	116.7	11.6	128.3	173.7	.74
1945	114.4	14.9	129.3	167.7	.77
1946	124.3	10.9	135.2	161.3	.84
1947	96.1	13.7	109.8	152.5	.72
1948	3/ 115.9	4/ 8.0	123.9	slightly smaller than 1947	about 10 to 15 percent larger than 1947

1/ Total stocks of corn October 1 and oats and barley July 1.

2/ See footnote 5, table 16. 3/ Based on acreage intentions on March 1 and 1942-46 average yields by States. 4/ Tentative estimate.

Table 3.- Hay: Acreage, yield, production, and supply per animal unit, United States, average 1937-41, annual 1942-48

Year	Acreage	Yield	Production	Carry-over May 1	Total supply	Roughage-consuming animal units fed annually 1/	Supply per animal unit
	Mil. acres	Ton	Mil. tons	Mil. tons	Mil. tons	Millions	Ton
Average 1937-41	69.9	1.30	90.6	12.4	103.0	70.8	1.45
1942	74.8	1.44	107.7	13.7	121.4	78.2	1.55
1943	77.0	1.34	103.1	16.2	119.3	79.6	1.50
1944	77.5	1.33	102.7	13.8	116.5	78.7	1.48
1945	77.0	1.41	108.5	15.9	124.4	75.3	1.65
1946	74.2	1.36	100.7	20.6	121.3	72.8	1.67
1947	75.3	1.36	102.5	16.0	118.5	70.2	1.69
1948	2/74.2	1.37	3/ 102.0		slightly smaller	slightly smaller	about same

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1/ New series, published in "Animal Units of Livestock Fed Annually, 1919-20 to 1946-47," November 1947, Bureau of Agricultural Economics. Roughage-consuming livestock were weighted as follows: Number on January 1 of milk cows 2 years old and over, 1.00; heifers and heifer calves kept for milk, .42; beef cows 2 years old and over, .89; cattle on feed .32; all other cattle .42; stock sheep .20; sheep and lambs on feed .058; horses and mules 2 years old and over .76; horse and mule colts .41; hogs .01; chickens .0012; turkeys produced during year .0024; goats clipped .2.

2/ Indicated acreage for harvest. 3/ 1942-46 average yields per acre by States on the prospective hay acreage.

The acreage of all hay harvested in 1948 will be slightly smaller than in 1947 but a little above the average of the past 10 years, if farmers carry out March 1 intentions. At yields equal to the 1942-46 average, total tonnage would be only slightly less than the 102.5 million tons produced in 1947. Such a crop would easily be adequate for livestock feeding requirements in 1948-49, since the number of hay-consuming animals also is expected to be reduced further this year.

Prospects for Production of Oilseed Cake and Meal in 1948-49

Supplies of oilseed cake and meal for 1948-49 will be about as large as in the present marketing year, if farmers plant the intended acreages of oilseed crops and yields are near recent averages. Prospects are that the acreage of soybeans will be about 10 percent smaller than in 1947. Even with the smaller acreage the soybean crop would be slightly larger than in 1947, if yields are about equal to the 1942-46 average. The prospective acreage of flaxseed, the crop from which linseed cake and meal are produced, is 6 percent larger than last year. The acreage of peanuts to be grown alone for all purposes is about 4 percent smaller. Farmers' intentions with respect to cotton for 1948 are not reported, but the 1948 goal for cotton is 2 percent above the acreage planted in 1947. However, smaller supplies of beet pulp are likely, since the sugar beet acreage planned for 1948 is about 7 percent smaller than in 1947. With yields equal to the 1942-46 average, production of beets would be about 12 percent smaller.

Table 4.-Planted acreage of specified crops, 1937-46 average, 1947, and prospective plantings for 1948

Crop	Average 1937-46	1947	1948 goals	Prospective 1948 1/	1948 as a percentage of 1947
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	Percent
Corn	91,696	86,168	90,700	86,131	100.0
Oats	42,130	42,501	43,940	45,709	107.5
Barley	14,632	12,030	12,625	12,660	105.2
Sorghums 2/	16,745	11,538	14,938	12,821	111.1
Wheat	66,296	77,947	75,095	3/78,437	100.6
Soybeans for beans 4/	7,162	11,125	10,546	9,911	89.1
Flaxseed	3,189	4,157	4,326	4,401	105.9
Peanuts 5/	2,531	3,378	2,839	3,263	96.6
Sugar beets	854	966	966	902	93.4
All hay	73,018	75,291	6/75,413	74,215	98.6

1/ Based on reports of farmers' intentions about March 1.

2/ Excluding sirup. Prospective acreage for 1948 less 1947 acreage harvested for sirup.

3/ Winter wheat seeded plus prospective acreage for spring wheat.

4/ Harvested acreage. Prospective acreage for 1948 based on the usual relationship between the total acreage harvested and the acreage harvested for beans.

5/ Picked and threshed. Prospective acreage for 1948 based on the usual relationship of acreage planted alone to acreages for picking and threshing by States.

6/ Tame hay plus 1947 wild hay acreage in 22 States.

Lower Feed Prices and Higher Livestock-feed Price Ratios Expected For 1948-49

Assuming that production reaches the 116 million tons computed from prospective acreages and average yields, prices of feed grains probably will decline more rapidly than usual this fall when the crops are harvested. Prices of feeds in general are expected to average lower in the second half of 1948 than in the same period of 1947. The difference is expected to be most pronounced in the last quarter.

If yields on the prospective acreage are equal to or better than average, prices of oats and barley probably will decline more than seasonally from April to July. Also the price of corn probably would begin its seasonal decline a little early this year and fall faster than usual between August and December. If the crop should turn out unusually large, prices in some areas may fall to support levels. Loans will be available on 1948 corn at 90 percent of the parity price at the beginning of the marketing year. If the parity price at that time should be the same as it was on March 15, the loan rate would average about $1.43 per bushel, farm basis, for the United States.

If feed crops turn out much larger this fall than last and with current livestock numbers relatively low, feed prices in 1948-49 are expected to be lower in relation to prices of livestock and livestock products than in the fall and winter of 1947-48. This would encourage a heavier rate of feeding per unit of livestock than at present. It also would stimulate some expansion in production of livestock and livestock products in 1949.

CURRENT FEED SITUATION

Smaller Supplies of Feed Concentrates for the First Half of 1948

Production of feed grains in 1947 was small compared with the record crops in 1946. Supplies for feeding and other uses in the first half of this year are much smaller than in the same period of 1947. Supplies will continue smaller than a year earlier until harvesting of this year's grain crops begins this summer and fall.

Total stocks of three principal feed grains (corn, oats, and barley) on January 1, 1948, were 25 percent smaller than on January 1, 1947. Wheat stocks however, were 24 percent larger and more wheat probably will be fed in the first 6 months of 1948 than at the same time last year. Supplies of byproduct feeds are expected to be a little less than the record supplies for the same months of 1947, but considerably larger than before the war. The decrease will be almost entirely in wheat millfeeds. More oilseed cake and meal is available this year than last.

For the first six months of 1948, the total supply of feed concentrates, including feed grains, wheat and rye for feed, and byproduct feeds, is estimated to be about 20 percent smaller than last year. Exports of corn and other feed grains have been small since January 1 and will continue so, at least until the new harvest. Less corn will be used for industrial and food purposes in the first half of 1948 than during the same months last year. Stocks of feed grains probably will be cut down much lower this summer than last. About 10 percent less feed concentrates will be fed to livestock in the first half of 1948 than a year earlier. The number of grain-consuming animal units on January 1 is about 4 percent below last year. The rate of feeding per animal unit will be reduced from the heavy rate in early 1947, but it will be somewhat above the prewar average.

Table 5.- Feed concentrate supplies for January-June per grain-consuming animal unit on farms January 1, average 1938-42, and annually 1943-48

Year	Stocks of feed grains Jan. 1 1/	Other grains fed 2/	Byproduct feeds fed	Total supply feed concentrates	Grain-consuming animal units Jan. 1 3/	Supply per animal unit	Feed concentrates fed per animal unit
	Million tons	Million tons	Million tons	Million tons	Millions	Ton	Ton
1932-42	70.5	2.4	7.7	80.6	132.8	.61	.34
1943	84.0	7.2	9.5	100.7	160.7	.63	.41
1944	72.8	7.2	9.3	89.3	172.6	.52	.36
1945	77.1	4.8	9.5	91.4	147.6	.62	.39
1946	75.0	4.3	8.7	88.0	146.6	.60	.41
1947	81.0	2.2	9.7	92.9	138.0	.67	.40
1948 4/	61.0	4.0	9.3	74.3	133.0	.56	.38

1/ Stocks of corn, oats, and barley. Farm, terminal market, and Government-owned stocks through 1943. Stocks in all positions, including interior mill, elevator, and warehouse stocks, 1944-48. 2/ Wheat, rye, and imported grains fed. 3/ See footnote 1, table 7. 4/ Preliminary estimates.

Marketings of Corn Less Than in Other Recent Years

Receipts of corn at primary markets this winter have been much less than in 1946-47 and other recent years. During October-December 1947, receipts of corn at 12 primary markets were about 62 percent of those in the same months of 1946. In January-March 1948, receipts were less than 40 percent as large as in the same months of 1947. In late February and throughout March, receipts were very small. This was caused partly by unfavorable marketing weather, but also may have reflected uncertainty regarding the grain markets.

Total sales of corn by farmers from the 1947 crop, both to other farmers and to the markets, are expected to continue small. The total for the marketing year probably will not exceed 500 million bushels, the least since 1940. In 1946-47, a record 832 million bushels were sold.

Table 6.- Feed grains: Receipts at primary markets, Jan.-Feb.,1946-48

Item	1946		1947		1948	
	Jan.	Feb.	Jan.	Feb.	Jan.	Feb.
	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.	1,000 bu.
Corn, 12 markets 1/	31,611	33,196	49,846	41,045	25,223	17,641
Oats, 12 markets 1/	21,963	13,104	11,419	9,065	11,062	5,448
Barley, 4 markets 2/	6,880	5,089	10,241	4,806	8,679	5,173

Compiled from reports of the Grain Branch, Production and Marketing Administration
1/ Chicago, Milwaukee, Minneapolis, Duluth, St. Louis, Kansas City, Peoria, Omaha, Indianapolis, Sioux City, St. Joseph, and Wichita.
2/ Minneapolis, Milwaukee, Chicago, and Duluth.

Market receipts of oats continue somewhat below the same months of the past two years, but are larger than in most years before 1945. Receipts of barley at principal markets since the harvesting of the 1947 crop have been a little larger than a year earlier, and the second largest on record.

Livestock Numbers the Lowest in Eight Years

Numbers of livestock, declining since 1944, fell further during 1947. On January 1, 1948, 133 million grain-consuming animal units were on farms, about 4 percent fewer than a year earlier, 23 percent below 1944, and the smallest number since 1939. Although the total number of grain-consuming units is down nearly to the 1938-42 average, the number of production units, which excludes horses and mules, is 5 percent above. Hay-consuming animal units were about 4 percent fewer than a year earlier and the lowest since 1940.

Table 7.-Numbers of livestock by classes and of total grain-consuming animal units on farms in the United States, January 1, average 1938-42, and annually 1943-48

Year	All cattle including milk cows	Milk cows	Hogs	All sheep	Horses and mules	Chickens	Grain-consuming animal units 1/
	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
Average							
1938-42	69,473	25,154	54,132	52,930	14,455	429,256	132,765
1943	81,204	27,138	73,881	55,150	13,231	542,047	160,669
1944	85,334	27,704	83,741	50,782	12,613	582,197	172,559
1945	85,573	27,770	59,331	46,520	11,950	516,497	147,594
1946	82,434	26,695	61,301	42,436	11,063	530,203	146,622
1947	81,207	26,098	56,921	37,818	10,021	474,441	138,012
1948 2/	78,564	25,165	55,038	35,332	9,151	462,976	132,960

1/ Weighted by the relative consumption of grain by each class or species of animal. One milk cow is considered as one animal unit; other cattle, 0.51; horses and mules, 1.14; sheep, 0.04; hogs, 0.87; and chickens, 0.045 animal units.
2/ Preliminary.

At normal rates of feeding, feed requirements will be smaller during 1948 than in 1947. In the 1947-48 feeding season which began last October, approximately 5 percent fewer grain-consuming animal units will be fed than in 1946-47. (See table 16.) This estimate takes into account fewer beef cattle on feed, prospects for a 9 percent reduction in the 1948 spring pig crop, and the likelihood of fewer chickens and turkeys being raised this year. Chick hatchings in February were 21 percent smaller than a year earlier and eggs in incubators on March 1 were down 26 percent.

The above estimate of animal units to be fed in the 1947-48 season is taken from a new series, "Animal units fed annually" 1/. This series differs from the original "Livestock units January 1" in that it includes such items as size of the spring and fall pig crops, beef cattle on grain feed, chickens and turkeys raised during the year, and others, so as to indicate more nearly the average number of livestock fed during the feeding year beginning October 1. This new series has been computed for each State. A comparison with the series, "Grain-consuming animal units on January 1" is shown in table 16.

1/ First published in Animal Units of Livestock Fed Annually, 1919-46, by R. D. Jennings, Bureau of Agricultural Economics, November 1947.

Feed Grain Prices Advance from February Low Point; High Relative to Byproduct Feeds

During March, prices of feed grains averaged considerably above the low point reached about the middle of February, but remained well below the January record. During March, market prices of corn and oats at Chicago averaged about 20 cents per bushel higher than in mid-February and barley prices at Minneapolis averaged about 25 cents higher. The mid-March index of feed grain was 10 percent above mid-February but about 13 percent below January. It was 38 percent higher than in March 1947. Prices of byproduct feeds generally advanced less than feed grains during late February and early March. Prices of some of the byproduct feeds, particularly cottonseed meal and tankage, declined further in March below the low points reached in February. Prices of wheat millfeeds, on the other hand, advanced sharply during March from the low level at the first of the month.

Table 8.- Prices of feed grains and specified byproduct feeds, January-March 1948, with comparisons

Period	Corn No. 3, Yellow, Chicago	Oats No. 3, White, Chicago	Barley No. 3, Minneapolis	Bran, standard, Minneapolis	Soybean meal, 41 pct., Chicago	Cottonseed meal, 41 pct., Memphis	Tankage 60 pct., digester, Chicago	Fish meal, San Francisco
	Cents per bu.	Cents per bu.	Cents per bu.	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton	Dol. per ton
1/ June 1946	152.8	84.0	143.2	47.75	66.00	62.75	84.30	89.50
Calendar year 1947	205.0	103.2	203.8	56.10	83.75	78.20	117.35	163.50
Week ended 2/								
Jan. 10	267.8	142.8	247.9	75.50	105.50	98.00	147.00	187.60
17	274.9	142.1	256.1	80.50	111.50	98.25	149.50	190.95
24	274.9	142.9	250.4	85.00	112.00	97.50	152.00	190.95
31	263.1	138.0	245.2	83.00	112.00	96.75	152.00	194.30
Feb. 7	247.2	134.8	226.3	75.00	100.00	93.50	152.50	201.00
14	208.3	3/110.6	203.1	65.00	89.95	81.50	149.00	187.60
21	213.8	117.0	212.4	58.50	83.00	80.50	127.00	187.60
28	222.3	123.3	219.4	58.50	83.00	80.50	124.50	164.15
Mar. 6	236.0	136.0	230.0	64.00	86.00	84.50	124.50	154.10
13	224.5	3/131.1	239.8	61.00	84.95	78.50	119.50	167.50
20	231.4	129.9	233.8	64.00	84.00	81.00	119.50	159.15
27	228.8	127.2	218.2	68.00	83.95	80.50	118.25	157.45

1/ Last month before price ceilings were removed on grain.
2/ Byproduct feed prices are quotations for Tuesday within the week.
3/ Simple average of daily spot prices.

Table 9. - Prices per ton of specified feeds in March 1948, with comparisons

Feed	March			
	Average 1930-44	1947	1948	1948 as a percentage of average
	Dollars per ton	Dollars per ton	Dollars per ton	Percent
Corn, No. 3 Yellow, Chicago	24.64	61.82	1/ 82.21	334
Oats, No. 3 White, Chicago	25.76	58.94	1/ 81.91	318
Barley, No. 3, Minneapolis	28.20	76.58	1/ 96.02	340
Wheat, No. 2 Hard Winter, Kansas City	32.64	89.80	1/ 81.85	251
Bran, Standard, Chicago	25.37	59.90	69.80	275
Middlings, Standard, Chicago	25.29	62.00	77.20	305
Gluten feed, 23 percent, Chicago	24.52	50.50	74.60	304
Soybean meal, 41 percent, Chicago	33.54	81.00	84.75	253
Cottonseed meal, 41 percent, Memphis	27.92	74.90	81.15	291
Tankage, digester, 60 percent, Chicago	50.96	115.30	120.00	235

1/ Four weeks ended March 27.

Feed grain prices in March continued high in relation to most byproduct feeds. No. 3 Yellow corn at Chicago averaged about $12 per ton higher than wheat bran and was only $3 per ton less than soybean meal. Ordinarily the price of corn per ton is a little lower than millfeeds and about 25 percent lower than soybean meal. Compared with No. 2 Hard Winter Wheat at Kansas City, the price per ton of corn and oats at Chicago averaged slightly higher during March, and barley at Minneapolis was about $14 per ton higher. Considering the differences in feeding value, oats and barley were higher in price in March than either corn or wheat.

On the whole, livestock-feed price ratios have been lower--less favorable to livestock producers--during 1947-48 than in recent years. Since prices of feed grains have generally fallen a little more since January than have prices of most livestock and livestock products, some increase in seasonally adjusted livestock-feed price ratios, except the ratio of hog to corn prices, has resulted. Prices of hogs have declined a little more than corn, resulting in a decline of the hog-corn price ratio to 10.3 compared with 10.9 for January and the long-time average for March of 12.8. On the other hand, prices of dairy products declined less than feed prices, and those ratios are a little higher than at the beginning of the year. The egg-feed ratio declined much less than seasonally from January to March. Nevertheless, the egg-feed ratio of 9.2 in March and the milk-feed ratio of 1.15 were still considerably lower than in March 1947 and the long-time average for the month.

HYBRID SEED - MORE CORN FROM FEWER ACRES

If farmers carry out their March 1 plans, corn acreage in 1948 will be about 15 percent below the 1920-29 average. But if nearly three-fourths of the 1948 acreage is planted with hybrid seed, as is expected, and if the growing season is average, production this year will be about 10 percent higher than the average of the twenties. This would be in line with the experience of the past 5 years, when production in the United States averaged 8 percent greater than in the 1920's from an acreage 11 percent smaller.

Corn yields in the United States averaged 22 percent higher in 1943-47 than in the twenties and 13 percent above the average for 1937-41. A major factor in higher yields was the marked increase in use of hybrid seed, especially in the Corn Belt. Also important were greater use of fertilizer and improved methods of tillage. Still another cause is a rise in acreage in the higher yielding area of the mid-West and a drop in the lower-yielding South, which raises the United States average yield.

As varieties adapted to certain areas were developed, the corn acreage in large parts of the Corn Belt was planted completely to hybrids. In 1947, about 92 percent of the corn acreage in the entire North Central Region was planted with hybrids. In the North Atlantic Region, about three-fourths was hybrid. In the Western States, where corn is a minor crop, hybrids were used on not quite 30 percent of the corn acreage last year.

Suitable hybrids were developed later in the South than in the North. Recently, though, their use has been increasing rapidly and in 1947 about one-fourth of the corn acreage in the South was hybrid. Further progress in developing suitable varieties gives a prospect for a further increase in hybrid acreage.

Table 10.-Corn acreage planted with hybrid seed, by regions, 1933-47

Year	North Atlantic		North Central		Southern States 1/		Western		United States	
	Acreage in hybrids	Percentage of total	Acreage in hybrids	Percentage of total	Acreage in hybrids	Percentage of total	Acreage in hybrids	Percentage of total	Acreage in hybrids	Percentage of total
	1,000 acres	Percent	1,000 acres	Percent	1,000 acres	Percent	1,000 acres	Percent	1,000 acres	Percent
1933	--	--	143	0.2	--	--	--	--	143	0.1
1934	--	--	372	0.6	--	--	--	--	372	0.4
1935	--	--	1,140	1.9	--	--	--	--	1,140	1.1
1936	5	2/	3,155	5.1	6	2/	--	--	3,166	3.1
1937	22	.9	7,578	12.9	31	.1	1	2/	7,632	7.9
1938	77	3.2	13,884	25.4	108	.3	10	2/	14,079	14.9
1939	185	7.7	20,110	38.6	301	.9	22	1.2	20,618	22.5
1940	343	14.3	25,985	51.8	634	1.8	49	2.6	27,011	30.5
1941	541	23.0	32,356	65.0	1,129	3.4	108	5.7	34,134	39.3
1942	747	31.6	38,590	73.0	1,690	5.3	172	9.2	41,199	46.4
1943	982	42.4	45,797	78.1	2,400	7.6	249	14.2	49,428	52.4
1944	1,231	48.4	51,617	83.5	3,327	11.3	300	18.3	56,475	59.2
1945	1,433	59.1	51,801	88.1	4,201	15.6	317	21.2	57,752	64.4
1946	1,692	68.9	53,868	90.8	5,720	21.5	334	24.9	61,614	68.6
1947 3/	1,792	76.4	52,626	92.5	6,981	27.2	354	28.8	61,753	71.7

1/ South Central and South Atlantic Regions.

2/ Less than .05 percent.

3/ Hybrid acreages derived by applying percentage of corn acreage planted with hybrid seed by States, published in July 1947, to all corn acreages planted by States published in the December Annual Crop Summary.

In the North Central Region, which contains about 65 percent of the total United States corn acreage, the marked increase in the use of hybrid seed has resulted in a large increase in yield per acre. Yields in this region, averaging close to 40 bushels per acre over the past few years, are now about one-third higher than during the twenties. A large part of the increase is attributable to hybrids. In the South, which has about 30 percent of the total corn acreage, and where less hybrid seed is used, yields have increased only moderately.

Corn acreage in the country as a whole has generally tended downward since 1920. In the North Central Region, acreage reached a peak in 1932. It then declined rapidly and in 1940 was the least since 1894. Since 1940, corn acreage in this region has increased about 20 percent. In the Southern States, on the other hand, corn acreage held up fairly well through the 1930's but has declined in the past 10 years.

SEASONAL VARIATION OF CORN PRICES BY REGIONS

Seasonal variation in corn prices is associated with three factors: (1) the time of harvest, (2) the cost of storage from harvest to the time of consumption, and (3) the increase in value because of moisture loss during storage. The seasonal variation in average prices received by farmers for corn is shown in table 11 as a percentage of the annual prices in each of the regions and also expressed in cents per bushel. Prices in the lower section of table 11 are average prices received by farmers in each region during 1921-40, adjusted to an average seasonal pattern by the indexes in the upper section.

Table 11. - Corn: Average seasonal variation in prices received by farmers, by regions, 1922-41

Region	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Av.
	Index numbers 1/												
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
N. Atl.	94.8	96.3	97.2	98.6	100.8	101.7	102.4	107.6	107.6	103.4	96.3	93.3	100
E.N.Cent.	92.5	94.1	95.0	97.8	101.9	104.9	107.9	112.8	111.9	99.7	90.6	90.9	100
W.N.Cent.	94.8	94.4	94.2	96.9	101.6	104.4	106.6	111.5	111.1	99.2	92.6	92.7	100
S.Atl.	90.4	94.2	98.0	101.0	103.7	106.0	107.3	109.8	108.2	100.7	91.7	89.0	100
S.Cent.	91.9	94.8	99.6	103.0	105.3	107.9	108.3	108.6	104.2	97.0	89.9	89.5	100
Western	95.0	95.3	96.0	98.5	101.2	104.1	105.1	106.0	105.5	101.1	96.7	95.5	100
U. S.	92.3	94.0	95.3	98.4	103.0	105.5	109.9	111.8	110.0	98.2	90.6	91.0	100
Region	Expressed in cents per bushel 2/												
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
N. Atl.	78.7	79.9	80.7	81.8	83.7	84.4	85.0	89.3	89.3	85.8	79.9	77.4	83.0
E.N.Cent.	60.6	61.6	62.2	64.1	66.7	68.7	70.7	73.9	73.3	65.3	59.3	59.6	65.5
W.N.Cent.	58.8	58.5	58.4	60.1	63.0	64.7	66.1	69.1	68.9	61.5	57.4	57.5	62.0
S. Atl.	76.2	79.4	82.6	85.1	87.4	89.4	90.5	92.6	91.2	84.9	77.3	75.2	84.3
S.Cent.	71.1	73.4	77.1	79.7	81.5	83.5	83.8	84.1	80.7	75.1	69.6	69.3	77.4
Western	70.0	70.2	70.8	72.6	74.6	76.7	77.5	78.1	77.8	74.5	71.3	70.4	73.7
U. S.	62.4	63.5	64.4	66.5	69.6	71.3	74.3	75.6	74.4	66.4	61.2	61.5	87.6

1/ Average of ratios of 12-month moving average, centered, adjusted to eliminate abnormal fluctuations and to average 100 for the year.

2/ Monthly indexes of seasonal variation applied to the 1921-40 seasonal average prices received by farmers for each region.

Table 12.- Corn: Seasonal highs and seasonal lows, by regions 1/

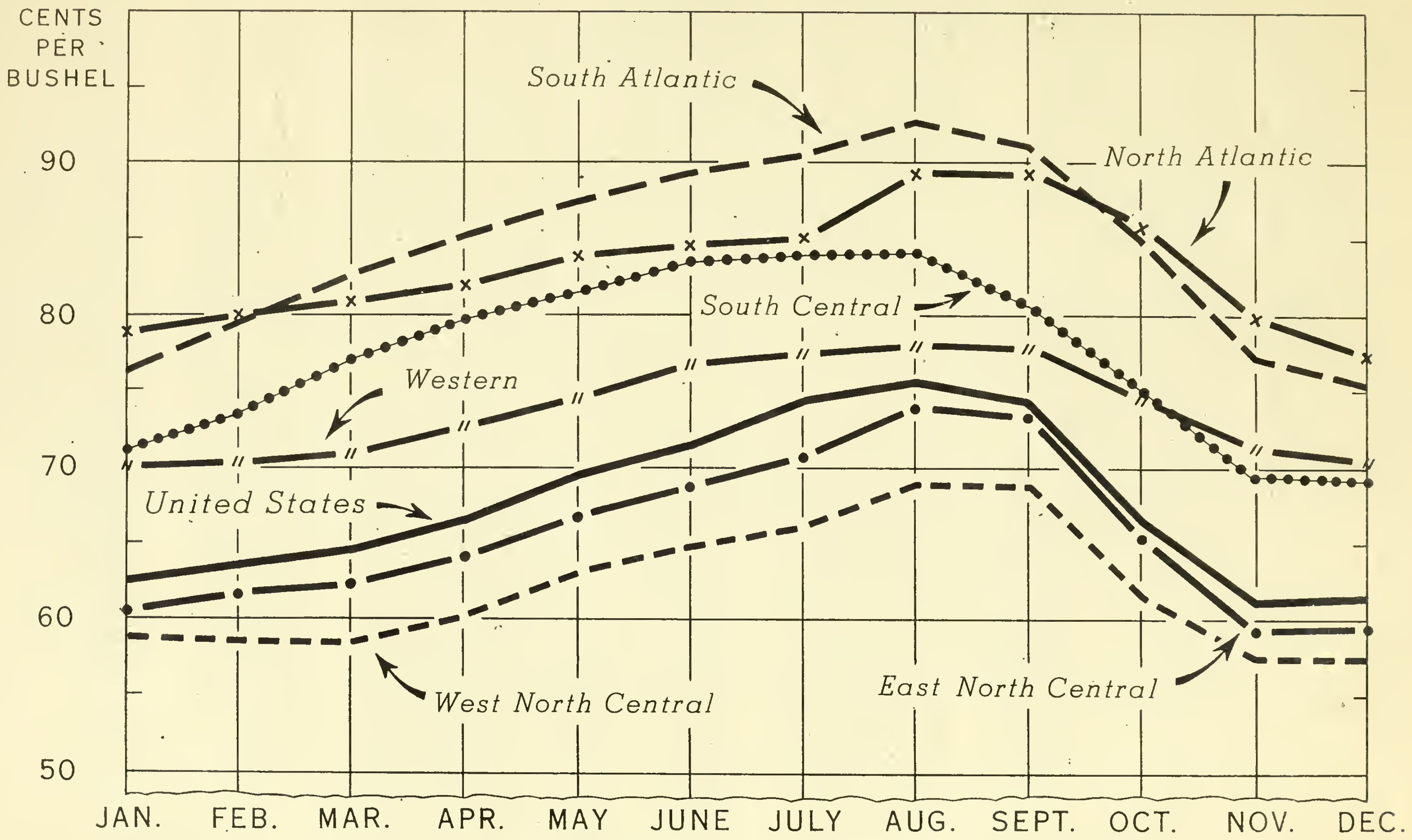
Region	Seasonal high			Seasonal low			Difference High to low	
	Month	Index	Price	Month	Index	Price	Index	Price
		Percent	Cents per bu.		Percent	Cents per bu.	Percent	Cents per bu.
N. Atl.	Aug. 2/	107.6	89.3	Dec.	93.3	77.4	-14.3	-11.9
E. N. Cent.	Aug.	112.8	73.9	Nov.	90.6	59.3	-22.2	-14.6
W. N. Cent.	Aug.	111.5	69.1	Nov.	92.6	57.4	-18.9	-11.7
S. Atl.	Aug.	109.8	92.6	Dec.	89.0	75.2	-20.8	-17.4
S. Cent.	Aug.	108.6	84.1	Dec.	89.5	69.3	-19.1	-14.8
Western	Aug.	106.0	78.1	Jan.	95.0	70.0	-11.0	- 8.1
U. S.	Aug.	111.8	75.6	Nov.	90.6	61.2	-21.2	-14.4

1/ Based on the seasonal variation of average prices received by farmers for 1922-41 as shown in table 11.
2/ Same in August and September.

The average seasonal variation for 1922-41 in United States corn prices ranged from 12 percent above the annual averages in August to 9 percent below in November, a total variation of 21 percent. In every region, the seasonal high was reached about August, but the seasonal lows varied from November to January. The greatest seasonal variation, as a percentage of annual price, occurred in the East North Central Region. In cents per bushel, the greatest variation occurred in the South Atlantic Region. Expressed in either percent of average or in cents per bushel, seasonal variation was least in the Western Region. Corn is a minor feed grain in this region and the seasonal pattern of prices apparently is influenced largely by changes in prices of small grains.

The pattern of seasonal variation in the United States is largely determined by the pattern in the two principal producing regions--the East and West North Central States. In these regions and the North Atlantic Region, the seasonal decline occurs almost entirely from the middle of September to the middle of November. This reflects the fact that harvest begins there in October and is nearly completed by early December. In the Southern States, where harvest begins from 3 to 6 weeks earlier, more of the seasonal decline occurs in late August and September. In the South Central Region, corn prices usually drop 4 percent from August to September, about one-fifth of the total seasonal decline for the year.

CORN: SEASONAL PATTERN OF PRICES RECEIVED BY FARMERS, BY REGIONS, 1922-41*



*AVERAGE OF ACTUAL PRICES RECEIVED BY FARMERS ADJUSTED TO AN AVERAGE SEASONAL PATTERN. THE SEASONAL PATTERNS WERE COMPUTED FROM MONTHLY RATIOS TO A 12-MONTH MOVING AVERAGE, WITH EXTREME FLUCTUATIONS ELIMINATED.

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Corn prices advance more from winter to spring in the two Southern Regions than in the North Central. In the South Atlantic Region, the price of corn in December is about 18 cents per bushel higher than in the West North Central and by April it is about 24 to 25 cents higher. In the South Central Region, corn prices are about 12 cents per bushel above those of the West North Central in December and 18-20 cents higher from March through July. This widening of regional spread in price in the spring appears to be due, at least partly, to the faster deterioration of corn in storage in the South than in the North Central Region, caused mainly by greater damage from insects. Because of this, Southern farmers tend to feed home grown grains early in the feeding season. They depend more on corn from the Corn Belt later in the season. In the North Atlantic Region--the other major feed deficit area--prices do not show a tendency to increase more during the spring and summer than in the Corn Belt. In this Region, deterioration to corn stored through the spring and summer is probably no greater than in the Corn Belt.

The normal seasonal variation in corn prices of about 21 percent for the United States, as estimated from data for 1922-41, is about as great as the average change from one year to the next. Changes in corn prices from one year to another are caused principally by changes in the size of the crop and by changes in business activity and demand. If the effects of changes in demand factors are eliminated, the year to year variation in corn prices would be less marked than the seasonal variation within the crop year.

Seasonal variation in prices received by farmers, as a percentage of the yearly average prices, is greater for corn than for most other grains, for cotton, or for most livestock products, which are either produced fairly uniformly through the year or which have a small storage cost per unit of value. Seasonal variation for corn is about the same as that for hogs. However, it is considerably less than for eggs, fruits, and vegetables, which are more perishable and have relatively high storage costs.

Although the average pattern of seasonal variation in corn prices is fairly well established, monthly price changes in some years have been considerably different from the normal pattern. This is sometimes caused by changes in the size of the corn crop from one year to the next. When a large crop follows a small crop, the seasonal price decline from August to November tends to be larger than when a large crop follows either an average or a large crop. When a small crop follows a larger crop, the total seasonal change is more moderate, but fluctuations during the season are likely to be more erratic.

The irregular price movements in the present corn marketing year seem to be about the usual response to a small crop. The seasonal pattern of prices has been less pronounced than usual and very irregular. Corn prices made some seasonal decline from September to November 1947, then advanced sharply to new highs in January. In February, they dropped abruptly to levels below November.

In a given region, the monthly price changes within a year may be affected by the size of the crop in that region compared with others. Again the present year serves as an example. Corn production was unusually small in the Corn Belt last fall and corn prices in this area have been much more variable than in other regions in the country. In January, the price in the North Central Region was about 30 cents per bushel higher than in the Southern States. But the break in prices from January to February was greatest in the North Central Region. Prices there were below those in any other region in February and March.

Table 13.-Feed grains: Planted acreages by regions, average 1937-46, 1947, and indicated for 1948

Region	Corn			Oats			Barley		
	Average: 1937-46	1947	Indicated 1948 1/	Average: 1937-46	1947	Indicated 1948 1/	Average: 1937-46	1947	Indicated 1948 1/
	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres	1,000 acres
North Atlantic	2,416	2,347	2,474	1,983	1,542	1,806	261	244	238
East North Central	20,270	20,858	21,368	10,192	9,565	10,836	875	343	389
West North Central	35,433	36,021	35,414	20,719	21,201	23,286	8,354	5,972	6,337
South Atlantic	10,942	9,547	9,643	2,124	2,725	2,451	220	263	271
South Central	20,818	16,164	15,974	4,742	5,147	4,966	977	480	504
Western	1,814	1,231	1,258	2,367	2,321	2,364	3,941	4,728	4,921
Total United States	91,696	86,168	86,131	42,130	42,501	45,709	14,632	12,030	12,660

1/ Based on reports from farmers indicating their acreage intentions about March 1.

Table 14.-Feed grains: Planted acreage, yield, and production, United States, 1941-48

Year	Corn 1/			Oats			Barley		
	Planted acreage	Yield per planted acre	Production	Planted acreage	Yield per planted acre	Production	Planted acreage	Yield per planted acre	Production
	1,000 acres	Bushels	1,000 bushels	1,000 acres	Bushels	1,000 bushels	1,000 acres	Bushels	1,000 bushels
1941	86,837	30.5	2,651,889	41,841	28.3	1,182,509	15,857	22.9	362,568
1942	88,818	34.5	3,068,562	43,018	31.2	1,342,681	19,686	21.8	429,450
1943	94,341	31.4	2,965,980	43,467	26.2	1,139,831	17,474	18.5	322,913
1944	95,475	32.3	3,088,110	43,804	26.2	1,149,260	14,337	19.3	276,112
1945	89,727	32.1	2,880,933	45,889	33.5	1,535,676	11,718	22.8	266,833
1946	89,788	36.2	3,249,950	46,549	32.2	1,497,904	11,527	22.8	262,258
1947	86,168	27.9	2,400,952	42,501	28.6	1,215,970	12,030	23.2	279,182
1948 2/	86,131	34.8	3,000,000	45,709	30.0	1,370,000	12,660	22.4	284,000

1/ For all purposes.

2/ Acreages indicated by March 1 intentions of farmers; production and yields based on intended acreages with 1942-46 average yields by States.

Table 15.-Corn: Acreage, yield per acre, and production in specified areas, 1920-47
(Data for cover page)

Year	Acreage harvested				Yield per harvested acre				Production, for all purposes			
	North Central Region	Southern States 1/	Other States 2/	United States	North Central Region	Southern States 1/	Other States 2/	United States	North Central Region	Southern States 1/	Other States 2/	United States
	Million acres	Million acres	Million acres	Million acres	Bushels	Bushels	Bushels	Bushels	Million bushels	Million bushels	Million bushels	Million bushels
1920	60.6	36.1	4.7	101.4	35.7	20.7	33.8	30.3	2,168	747	158	3,071
1921	58.8	39.7	4.7	103.2	34.4	18.8	33.7	28.4	2,024	748	156	2,928
1922	59.1	36.6	4.6	100.3	32.6	17.4	30.6	27.0	1,928	637	142	2,707
1923	62.8	33.4	4.9	101.1	34.4	17.0	30.2	28.4	2,161	565	149	2,875
1924	63.5	32.0	4.9	100.4	25.2	16.0	23.2	22.1	1,598	510	115	2,223
1925	65.6	30.8	4.9	101.3	33.1	15.6	29.7	27.6	2,172	479	147	2,798
1926	64.2	30.5	4.8	99.5	28.4	19.8	25.7	25.6	1,820	604	123	2,547
1927	61.8	32.2	4.4	98.4	30.6	18.8	26.9	26.6	1,892	606	118	2,616
1928	64.6	31.2	4.5	100.3	31.4	16.7	25.8	26.6	2,030	521	115	2,666
1929	62.7	30.6	4.5	97.8	29.7	17.6	25.8	25.7	1,861	539	116	2,516
1930	65.2	31.9	4.4	101.5	24.4	12.2	23.7	20.5	1,588	388	104	2,080
1931	67.5	34.6	4.8	106.9	26.9	18.2	27.5	24.1	1,815	630	131	2,576
1932	69.7	35.7	5.2	110.6	32.1	16.2	22.3	26.5	2,236	580	114	2,930
1933	65.9	35.0	5.0	105.9	26.4	15.3	24.0	22.6	1,742	535	121	2,398
1934	53.1	35.3	3.8	92.2	16.6	13.2	26.9	15.7	881	465	103	1,449
1935	56.0	35.3	4.7	96.0	28.4	16.3	27.2	24.0	1,595	576	128	2,299
1936	55.2	33.7	4.3	93.2	16.3	14.7	26.2	16.2	899	494	113	1,506
1937	56.5	33.0	4.4	93.9	33.9	18.3	28.3	28.1	1,916	603	124	2,643
1938	53.1	34.8	4.3	92.2	34.1	17.8	28.2	27.7	1,807	619	123	2,549
1939	50.5	33.9	3.9	88.3	38.1	16.0	29.3	29.2	1,923	643	115	2,581
1940	48.7	33.7	4.0	86.4	35.5	18.2	28.0	28.4	1,731	614	112	2,457
1941	49.0	32.2	4.2	85.4	39.5	18.3	31.2	31.1	1,935	588	129	2,652
1942	52.0	31.3	4.1	87.4	45.2	18.7	32.7	35.1	2,350	584	135	3,069
1943	57.0	31.1	4.0	92.1	40.3	17.8	28.9	32.2	2,300	552	114	2,966
1944	61.0	28.9	4.1	94.0	40.1	18.0	29.4	32.8	2,449	520	119	3,088
1945	57.7	26.6	3.8	88.1	38.1	21.0	33.1	32.7	2,197	556	126	2,881
1946	58.7	26.1	3.7	88.5	48.6	21.5	34.7	36.7	2,559	562	129	3,250
1947	55.1	25.4	3.5	84.0	31.3	21.9	34.2	28.6	1,728	554	119	2,401

1/ South Central and South Atlantic Regions. 2/ North Atlantic, Mountain and Pacific Regions. 3/ Preliminary.

Table 16. - Feed concentrates: Supply and utilization per unit of livestock, United States, year beginning October, 1926-47

Year beginning October	Total supply of feed grains 1/	Other grains and by-product feeds 2/ 3/	Total supply of feed concentrates	Total concentrates fed to livestock 2/	Grain-consuming animal units January 1 4/	Supply of all concentrates per animal unit	Concentrates fed per animal unit	Grain-consuming animal units fed during year 5/	Supply of all concentrates per animal unit fed	Concentrates fed per livestock unit
	Mil. tons	Mil. tons	Mil. tons	Mil. tons	Million	Ton	Ton	Million	Ton	Ton
1926	108.2	14.9	123.1	103.2	135.5	.91	.76	152.4	.81	.68
1927	107.8	14.9	122.7	107.4	140.5	.87	.76	153.0	.80	.70
1928	110.5	15.7	126.2	107.1	137.0	.92	.78	152.7	.83	.70
1929	104.1	17.3	121.4	104.7	135.8	.89	.77	153.6	.79	.68
1930	93.8	19.4	113.2	95.8	134.9	.84	.71	152.4	.74	.63
1931	104.9	18.1	123.0	104.3	139.5	.88	.75	156.0	.79	.67
1932	121.4	16.8	138.2	111.5	144.5	.96	.77	159.5	.87	.70
1933	99.4	16.2	115.6	92.2	143.2	.81	.64	153.7	.75	.60
1934	64.9	17.6	82.5	71.8	120.5	.68	.60	131.1	.63	.55
1935	95.8	18.8	114.6	94.8	123.0	.93	.77	138.5	.83	.68
1936	70.2	19.7	89.9	75.9	122.4	.73	.62	137.6	.65	.55
1937	103.9	19.3	123.2	97.6	121.0	1.02	.81	137.7	.89	.71
1938	111.0	19.6	130.6	99.6	127.0	1.03	.78	148.5	.88	.67
1939	116.5	20.0	136.6	103.0	138.6	.98	.74	156.0	.88	.66
1940	121.4	19.3	140.7	108.6	133.6	1.05	.81	155.9	.90	.70
1941	128.2	22.5	150.7	118.9	143.7	1.05	.83	167.3	.90	.71
1942	139.3	33.5	172.8	142.5	160.7	1.08	.89	192.4	.90	.74
1943	129.9	34.6	164.5	139.0	172.6	.95	.81	193.1	.85	.72
1944	128.3	29.7	158.0	129.1	147.6	1.07	.87	173.7	.91	.74
1945	129.3	26.2	155.5	133.7	146.6	1.06	.91	167.7	.93	.80
1946	135.2	24.5	159.7	124.7	138.0	1.16	.90	161.3	1.00	.77
1947	109.8	26.6	136.4	116.6	133.0	1.03	.88	152.5	.89	.76

1/ Production of four feed grains, plus total carry-over of corn October 1, and oats and barley July 1.

2/ Condensed from Feed Balance table published in Feed Statistics Supplement No. 8, Bureau of Agricultural Economics, December 1947.

3/ Wheat and rye fed, imported grain fed, mill byproduct feeds, oilseed cakes and meals, and animal protein feeds.

4/ Grain-consuming animal units on January 1 weighted as follows: Milk cows 1.00, other cattle 0.51, hogs 0.87, sheep 0.04, horses and mules 1.14, chickens 0.045.

5/ New series, published in "Animal Units of Livestock Fed Annually, 1919-20 to 1946-47," November 1947, Bureau of Agricultural Economics. Livestock numbers were weighted as follows: Number on January 1 of milk cows and heifers 2 years old and over, 1.00; heifers and heifer calves, 0.4; beef cows 2 years old and over, 0.153; cattle on feed, 2.08; all other cattle, 1.53; stock sheep, 0.023; horses and mules 2 years old and over, 1.29 ; colts, 0.16; hens and pullets, 0.054; number of hogs during the year, 0.693; chickens raised, 0.018; and turkeys produced, 0.076.

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Table 17.- Production and stocks of specified byproduct feeds, October 1945-February 1948

Item	1945-46	1946-47	1947		1943	
	Oct.-Sept.	Oct.-Sept.	Jan.	Feb.	Jan.	Feb.
	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons	1,000 tons
Production						
Cottonseed cake and meal..	1,409.8	1/1,427.1	183.5	129.9	241.7	191.3
Soybean cake and meal.....	3,837.3	4,085.4	412.0	385.0	393.2	355.6
Linseed cake and meal	562.4	375.3	31.7	27.1	51.7	45.4
Peanut cake and meal	80.1	113.0	14.9	16.7	17.0	10.7
Copra cake and meal	67.6	194.5	20.3	18.6	19.6	17.9
Corn gluten feed and meal	801.7	1,040.1	92.1	84.8	73.8	60.8
Brewers' dried grains	211.9	228.3	17.1	13.5	17.4	16.1
Distillers' dried grains .	327.9	411.3	55.3	46.5	13.7	31.2
Wheat millfeeds	4,781.0	6,099.9	567.7	501.5	470.3	2/430.0
Rice millfeeds	154.8	165.7	20.8	15.7	14.7	12.5
Alfalfa meal	1,252.3	887.5	43.4	36.4	47.8	32.0
Fish cake and meal	187.9	1/ 185.2	3.2	3.3	3.9	3.2
Dry and powdered skim milk	6.8	11.3	.4	.5	.4	.4
Stocks end of period						
Cottonseed cake and meal..	55.4	37.8	160.0	159.7	71.2	85.1
Peanut cake and meal	1.0	.4	14.7	16.2	3.9	4.2
Brewers' dried grains	3.2	2.1	3.0	3.0	1.5	2.4
Distillers' dried grains..	3.6	5.1	21.1	11.9	5.9	7.2
Alfalfa meal	151.6	128.1	74.8	68.6	88.3	70.4

Compiled as follows: Cottonseed cake and meal and wheat millfeeds, Bureau of the Census; soybean, linseed, and copra cakes and meals, Grain Branch, Production and Marketing Administration, derived from Census crushings report; gluten feed and meal, brewers' and distillers' dried grains, rice millfeeds, and alfalfa meal, Production and Marketing Administration; fish cake and meal from Fish and Wildlife Service, Department of the Interior.

1/ Revised.
2/ Preliminary estimate.